

14. On some New Zealand Spiders.

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(Text-figures 92-96.)

Prof. Chas. Chilton, of Christchurch, New Zealand, suggested to his students that they should in the vacation collect specimens at various points over the North and South Islands, wherever their homes were situated. The result is that from some half-dozen localities specimens of spiders were brought in within the space of a few weeks, and these he has kindly sent to me.

New Zealand for a considerable period has been rather well worked from a zoological point of view, and its spider fauna described not only by Dr. Koch but by local men such as Messrs. Urquhart and Goyen. It is therefore not a little remarkable to find in the small collection here described so large a proportion of new species, and, moreover, the same new species, in one case from three, and another from two widely separated localities at the same time. The thirty specimens comprise no less than twelve species of eleven genera. Of the species, four are new, and one a local variety of an Australian species not hitherto recorded from New Zealand. They were collected mostly from Ruakura and Wellington, in the North Island, by Miss B. D. Cross, and one by Mr. E. P. Turner from the summit of Mt. Ngauruhoe shortly after an eruption. The latter appears to have minute particles of volcanic dust adhering to it.

The species from the South Island were taken by Messrs. R. N. Hawkes and G. M. Thomson, and by Prof. Chilton himself.

On Mt. Peel, in the Province of Canterbury, Mr. Hawkes picked up at random a male *Uliodon* of a new species, a new species of *Argoctenus*, a male of *Cambridgea antipodiana* (with its unique form of stridulatory organ), and three females of *Porrhothele antipodiana* Walck., a new locality for the two latter species.

In 1905 (Zool. Jahrb. xxi. pt. 4, 1905) M. Simon formed a genus *Mynoglenes* for a spider (*M. insolens*) from the Chatham Islands, 500 miles east of New Zealand, and I was recently able to describe another species (Reports Phil. Inst. of Canterbury, N. Z., 1909, vol. i. p. 165) from the Sub-Antarctic Auckland and Campbell Islands, south of New Zealand, but the genus had not so far been recorded from New Zealand itself. Miss Cross, Prof. Chilton, and Mr. Turner send specimens, one each from separate localities—Ruakura and Mt. Ngauruhoe in the North, and Picton in the South Island. These, although differing in size, are all adult and appear to be similar. I have taken them to be the same species.

Hemiclæa rogenhoferi L. Koch and *Araneus verrucosus* Walck., from Ruakura, are among the few spiders hitherto known to be common to both New Zealand and Australia; and *Tetragnatha*

ferox L. Koch, with some slight variations, is now for the first time recorded from New Zealand.

Prof. Chilton sends *Desis marina* Camb., taken by himself in Lyttelton Harbour, and a *Pardosa* from Picton Harbour.

Suborder **MYGALOMORPHÆ.**

Family **AVICULARIDÆ.**

Subfamily **DIPLURINÆ.**

Group **MACROTHELEÆ.**

Genus **PORRHOTHELE** Simon.

PORRHOTHELE ANTIPODIANA Walck.

Three females from Mt. Peel, Canterbury. Collected by Mr. R. N. Hawkes.

Suborder **ARANEÆ VERÆ.** Section **ECRIBELLATÆ.**

Family **DRASSIDÆ.**

Subfamily **HEMICLÆINÆ.**

Genus **HEMICLÆA** Thor.

HEMICLÆA ROGENHOFERI L. Koch,

One male from Ruakura. Miss B. D. Cross.

Family **ARGIOPIDÆ.**

Subfamily **ARGIOPINÆ.**

Group **TETRAGNATHÆÆ.**

Genus **TETRAGNATHA** Latr.

TETRAGNATHA FEROX L. Koch, var. **CROSSÆ**, nov.

One male and two females from Ruakura. Miss B. D. Cross.

A few variations from the Australian form are noted below, but it is so like in other respects that I do not think it can be specifically separated therefrom.

Group **ARANEÆ.**

Genus **META** Clerck.

META ARGENTATA Urquhart.

Nephila argentatum Urq. Trans. N.Z. Inst. vol. xix, p. 92.

One male and two females from Ruakura. Miss B. D. Cross.

These correspond so nearly in all respects with Mr. Urquhart's description of the *Nephila* above mentioned, except that the side eyes

are close together, that I have no doubt as to their belonging to the same species. The silvery colouring of the abdomen is suggestive of some of the *Nephila*, especially *N. venosa* L. Koch, but the shape of its cephalothorax and shorter lengths of tarsal joints show that it is not a *Nephila*, of which genus no species have been recorded from New Zealand.

Genus ARANEUS Linn.

ARANEUS VERRUCOSUS Walck.

Two males and six females from Ruakura. Miss B. D. Cross.

Family CLUBIONIDÆ

Subfamily CTENINÆ.

Group CTENELÆ.

Genus ULIODON L. Koch.

ULIODON HAWKESI, sp. n.

One male and one female from Mt. Peel, Canterbury.
Mr. R. N. Hawkes.

One male from Wellington. Miss B. D. Cross.

Subfamily LIOCRANINÆ.

Group MITURGELÆ.

Genus ARGOCTENUS L. Koch.

ARGOCTENUS AUREUS, sp. n.

One female from Mt. Peel. Mr. R. N. Hawkes.

Family AGALENIDÆ.

Subfamily CYBAINÆ.

Group DESIELÆ.

Genus DESIS Walck.

DESIS MARINA Cambr.

One female from Lyttelton Harbour. Prof. Chilton.

Group CYBEEELÆ.

Genus MYNOGLENES Simon.

MYNOGLENES CHILTONI, sp. n.

One male from Ruakura. Miss B. D. Cross.

One male from Mt. Ngauruhoe, Waikato, N. Island. Mr. E. P. Turner. Shortly after an eruption.

One female from Picton, S. Island. Prof. Chilton.

Group *ARGYRONETÆÆ*.

Genus CAMBRIDGEA.

CAMBRIDGEA ANTIPODIANA White.

One female from Mt. Peel. Mr. R. N. Hawkes.

Family PISAURIDÆ.

Group *DOLOMEDEÆÆ*.

Genus DOLOMEDES Latr.

DOLOMEDES TRIDENTATUS, sp. n.

One female from Dunedin. Mr. G. M. Thomson.

Family LYCOSIDÆ.

Group *PARDOSEÆÆ*.

Genus PARDOSA C, Koch.

(Probably) P. CANESCENS Goyen.

Lycosa canescens Goyen, Trans. N.Z. Inst, vol, xix. p. 203.

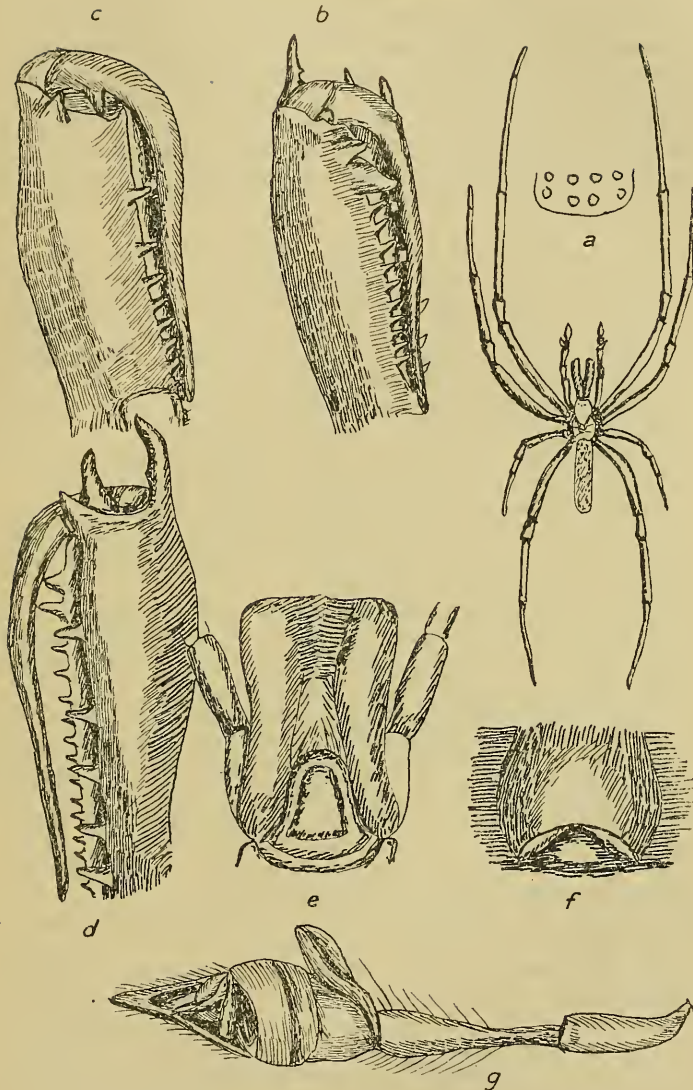
The specimens, one male and one female, agree closely with Mr. Goyen's description of his species, which he states he always found on river banks. Prof. Chilton collected this from a mud-bank in Picton Harbour, and I have little doubt as to its being the same. Its short broad lip, square front, two large equal teeth and one smaller on the inner margin of the falx-sheath, and procurved front row of eyes, show clearly that it belongs to C. Koch's genus *Pardosa*, and this would follow from Mr. Goyen's description of the lip alone.

TETRAGNATHA FEROX L, Koch, var. *CROSSÆÆ*, nov. (Text-fig. 92.)

Female, Cephalothorax, mandibles, maxillæ, coxæ, and legs orange-yellow. The lip, except on the front edge, is yellow-brown and the sternum somewhat darker. The scanty hairing is rather pale brown, and the spines on the legs dark brown. The cephalic part of the cephalothorax is bordered with a somewhat browner line, but with white hairs thereon, and there are two pairs of rather darker spots on the front of the rear slope. The abdomen above is yellow-grey, bordered with a dark grey wavy line on each side, the whole distance from front to rear. There are short white hairs rather thicker on the side slopes than on the back. Underneath it is a dingy yellow-grey with short brown hairs; there is a rather darker area running from the spinnerets to the breathing-apertures and epigyne.

The *cephalothorax* is a long oval, not quite twice as long as broad, rounded at the sides, the cephalic part distinctly raised above the thoracic. Between the end of the former and the rear slope

Text-fig. 92.



Tetragnatha ferox, var. *crossæ*. Male.

a, eyes; *b*, mandible of male from inside.
c, " " female from inside.
d, " " male from outside.
e, lip and maxillæ; *f*, epigyne; *g*, male palp.

are two pairs of depressions, one behind the other, divided by a rather broad ridge.

Viewed from above both rows of *eyes* are recurved, those of the rear row equal and equidistant two and a half times their diameter apart. The front median eyes are nearer together than the rear, and apparently rather larger; they are situated on the sides of a protuberance, and are as far from the rear eyes as from one another. The respective pairs of side eyes are a similar distance apart. As they are all dark and on black rims, the real size of the eye is difficult to distinguish. The *clypeus* is as broad as a front median eye.

The *mandibles* are as long as the cephalothorax, divergent, and protrude at an angle of 45 degrees. They have long upstanding hairs on the inner side and shorter ones on the outer edge. On the outer margin of the falx-sheath there are five rather long teeth, the upper one on the top edge being the largest. On the inner margin there is one large tooth at the top, one at the corner, then one small one a little way down, and then seven nearer together reaching to the top of the lip. On the inner side of the fang itself, near the base, is a short stout spine midway between the two marginal spines on the top edge of the sheath.

The *maxillæ* are long, broadest at the anterior end, where they rather bend back with a rounded corner at the outer edge; from here they slope in to about the middle and then out again. The trochanter of the palp is very long.

The *lip* is about two-fifths the height of the maxillæ, rounded in front with a rather prominent edge. It broadens out towards the posterior end, which is also rounded, and there is a depression all the way round a little distance from the margin.

The *sternum* is a long narrow shield-shape, twice as long as broad, hollowed in front, and with a prominent apophysis at each of the front corners; it is smooth and shiny, with a few fine upstanding hairs. There is a space between the second and third pair of coxæ, and the fourth pair are not quite contiguous to one another.

The *abdomen* is long and narrow, straight at the sides and slightly rounded at the front and rear.

The *epigyne* is a transverse oval, the inside filled with an oval convexity.

The *palpi* are thin. The tibial joint is twice as long as the patellar.

The *legs* are long and thin; the tibia of the front pair more than six times as long as the patella. There are four pairs of spines at the sides of tibiæ 3 and 4; the spines are fine and not very long.

The *male* is coloured the same as the female, except that the sternum is of the same bright yellow colour as the cephalothorax, maxillæ, and legs.

The mandibles are quite as long as the cephalothorax; on the inner margin of the falx-sheath are twelve teeth, the second of these being the largest. On the outer side there are three large

protuberances at the end, and five rather large teeth at intervals down the margin of the falx-sheath.

The male differs from *T. ferox* L. Koch in the larger second tooth from top on the inside of the mandible, in the apophyses at the head, the two inner curving in the opposite direction to the outer, in the mandibles being quite as long as long as the cephalothorax, instead of shorter, in the tibial joint of the palp being distinctly longer than the patellar, and the palpal stigma being not more than half as long as in *T. ferox*, and the legs longer in proportion.

The measurements (in millimetres) are as follows:—

Male.

	Long.	Broad.				
Cephalothorax ...	3	2				
Abdomen	5½	1				
Mandibles	3					
			Trochanter	Patella	Metatarsus	
	Coxa.	& femur.	& tibia.	& tarsus.		
Legs	1.	1	9	10	11	= 31
	2.	1	7	7	7	= 22
	3.	1	3½	2½	3	= 10
	4.	1	6½	6½	6½	= 20½
Palpi		½	2½	2	1½	= 6½

Female.

	Long.	Broad.				
Cephalothorax ...	3	1¾				
Abdomen	7	2				
Mandibles.....	3					
	Coxa.	Tr. & fem.	Pat. & tib.	Metat. & tars.		
Legs	1.	1	7	8	9	= 25
	2.	1	6	6	6	= 19
	3.	1	2½	2	2½	= 8
	4.	1	5½	5	5½	= 16½
Palpi		½	2½	2	1½	= 6½

T. ferox L. Koch, fairly common along the eastern and southern coasts of Australia, has not been previously recorded from New Zealand. The New Zealand and Australian females are practically identical, and I consider this to be a local variety, which I have named after Miss Cross, who sends a male and a female from Ruakura.

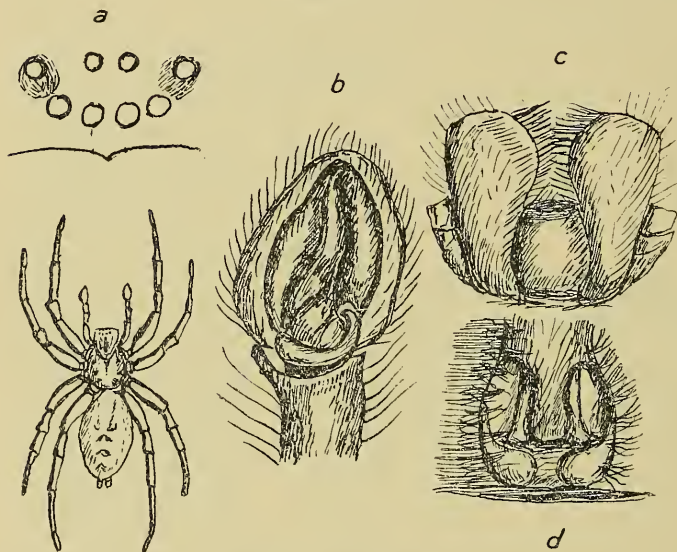
ULIODON HAWKESI, sp. n. (Text-fig. 93.)

Female. The cephalothorax is bright, rather pale yellow-brown, with short upstanding brown bristles and downlying white hairs. On the cephalic part there are three longitudinal darker lines—one median reaching from the eyes to the rear end, and one shorter each side, also a darker line round its margin. At the sides of the thoracic part is a darker brown marginal stripe.

Mandibles dark yellow-brown, with downlying white hairs and upstanding brown bristles; fangs bright red. Lip and maxillæ yellow-brown, with greyish-yellow hairs. Sternum yellow-brown, with whitish hairs. Coxæ pale yellow, with a dark band at the end. Femora yellow, with three dark bands underneath. The other joints of the legs dark yellow-brown, with black spines; grey scopulæ on all tarsi and metatarsi.

Abdomen above greyish-yellow mottled with black, sparsely covered with brown upstanding bristles and downlying white hairs. On the under side the fore part is yellow, with short yellow-brown hairs as far as the pulmonary apertures, the remainder pale yellowish grey. The sides are darker, nearly black, with longitudinal lines of yellow and white hairs.

Text-fig. 93.

*Utiodon hawkesi*. Female.

a, eyes; *b*, male palp; *c*, lip and maxillæ; *d*, epigyne.

The *cephalothorax* is convex, highest at the beginning of the rear slope, thence downwards to the eye-space. The cephalic part is rather more than half the greatest width of the thoracic, its sides rather straight, but those of the thoracic rounded. A long deep longitudinal fovea reaches to the top of the rear slope, which is steep.

The rear row of *eyes* viewed from above is recurved, but procurved from in front; the median eyes their diameter apart and rather more than three times that distance from the laterals, which are of the same diameter. Of the shorter front row, the laterals are as large as those of the rear row, but the median are

two-thirds their diameter. These are all equidistant, the diameter of the median apart, and one and a half of the same from the corresponding eyes of the rear row.

The *clypeus* is the width of the front median eyes to the margin of the beheaded part, and there is an equal distance of smooth muscle to the insertion of the mandibles.

The *mandibles* are much kneed at the base, narrowing to the anterior end, thickly covered with bristly hairs. The fangs are long and powerful. On the inner margin of the falx-sheath are three large equal teeth, and one large between two smaller on the outer.

The *lip* is longer than broad, hollow in front, rounded at the sides, and constricted at the basal part, which is rather long. It is more than half the length of the maxillæ, which are narrow at the base and gradually wider to the upper margin, where they are broadest, curving gradually on both inner and outer sides.

The *sternum* is a broad shield-shape, slightly convex, pointed at the rear between the nearly touching coxæ. It is thickly covered with upstanding bristly hairs.

The *legs* are stout and moderately long. The trochanters have a median ring of bristles rising from a chitinous ridge. The tibiæ and metatarsi have long powerful spines, with a bunch at the anterior end of the latter. There are thick scopulæ on the tarsus and metatarsus of all legs. The two claws have five or six pectinations.

The *palp* of the female has a pair of long spines at the base of the distal joint; the claw is smooth.

The *abdomen* is ovate, pointed at rear end, and the spinnerets terminal. The inferior pair are conical, two-jointed, the second joint being short and hemispherical. The superior pair are cylindrical, half the length of the inferior, with similar second joints.

The measurements (in millimetres) are as follows :—

		<i>Female.</i>				
		Long.	Broad.			
Cephalothorax ...	8	{				3 in front.
Abdomen	11					$5\frac{1}{2}$
Mandibles.....	$3\frac{1}{2}$					$7\frac{1}{2}$
			Pat. &	Metaf.		
		Coxa.	Tr. & fem.	tib.	& tars.	
Legs	1.	2	$6\frac{1}{2}$	7	$6\frac{1}{2}$	= 22
	2.	2	$5\frac{1}{2}$	$6\frac{1}{2}$	$6\frac{1}{2}$	= 20 $\frac{1}{2}$
	3.	2	6	$5\frac{1}{2}$	6	= 19 $\frac{1}{2}$
	4.	2	$6\frac{1}{2}$	7	$8\frac{1}{2}$	= 24
Palpi	1	$3\frac{1}{2}$	2	$2\frac{1}{2}$	=	9

One male and one female collected by Mr. R. N. Hawkes on Mt. Peel, Canterbury, at an altitude of 2000 feet.

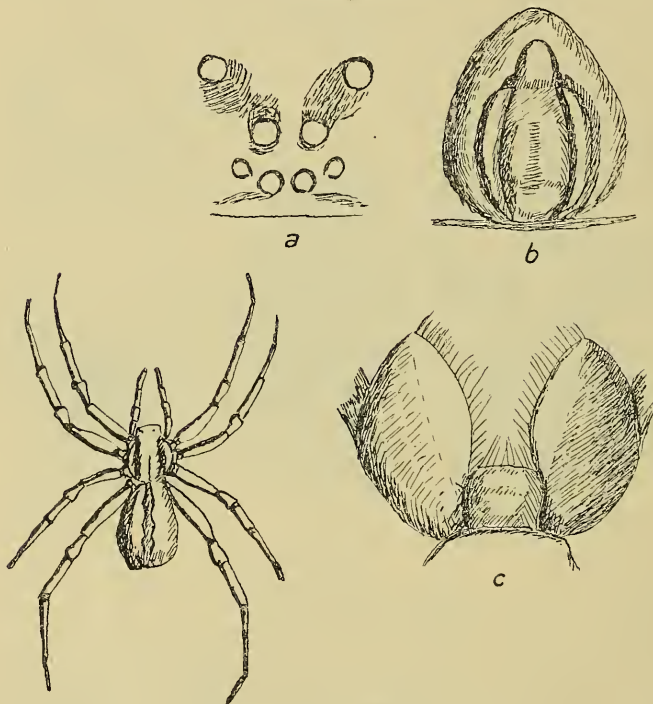
One male from Wellington, collected by Miss B. D. Cross.

Besides being twice as large, this species differs from *Uliodon (Zora) frenatum* L. Koch, from the same province, in the longitudinal lines on the cephalothorax. It has no pattern on the abdomen, and the sternum is yellowish instead of black-brown. There is a scopula on the tarsus and metatarsus of all legs, instead of only on the front two pairs.

ARGOCTENUS AUREUS, sp. n. (Text-fig. 94.)

Female. The cephalothorax is bright yellow in the middle the whole distance from the eyes to the rear; this is bordered on the side slope with dark grey, almost black, reticulations, with parallel stripes of the same colour reaching to the margin. At

Text-fig. 94.



Argoctenus aureus. Female. $\times 2$.

a, eyes; b, epigyne; c, lip and maxillæ.

the margin itself, on the rear half, is a narrow band of yellow, and at the side of the eye-space is rather darker yellow. The whole is covered with short downlying white flat hairs, the rear fovea being black-haired. Behind the eye-space is a jet-black curved line passing on each side along the margin, and there are

two black patches on the clypeus, but the same thick white hairs. The mandibles are deeper yellow, with a black streak on the inner edge of each, reaching from the base almost to the point, where it is again yellow. The fangs are red-brown. The lip is grey, the maxillæ pale yellow, with broad nearly white margins on the inner side of the former and front of the latter. The sternum is dark yellow-brown, thickly covered with white hairs and grey bristles. The legs are pale yellow on the upper side, with a grey streak nearly the whole length of the under side on the femoral, patellar, and tibial joints; covered with white or pale greyish-yellow hairs. The scopulæ and claw-tufts are pale grey.

The abdomen is yellow-grey, with a brown median scolloped stripe, darkened at the edges, reaching from the base to the spinnerets. The whole rear part is rather darker with a reticulation of grey on the yellow, the stripe remaining darker still. The hairs are white, with the exception of a few upstanding brown ones on the stripe and at the base. The under side is greyish yellow, covered with white intermixed with short brown hairs. The hairs on the yellow spinnerets are brown.

The *cephalothorax* is convex, rounded at the sides and broadest a little in front of the rear end. The front part is about one-half the greatest width, and the sides of this, as far back as the rear row of eyes, are straight.

The *eyes* are in four rows. The second row, the laterals of the front row, being vertically just clear of the median first pair. These are all of the same diameter and half their width apart. The rear two pairs are again of equal size, one-third larger than the front, the median ones being one-third of their diameter apart and the same distance from the front laterals. The median are $1\frac{1}{2}$ times their diameter from the rear laterals respectively, and the latter are four times their diameter apart.

The *clypeus* is as broad as the front eyes.

The *mandibles* are kneed at the base, divergent, and at the anterior end half their width at the base. They are as long as the front of the cephalothorax is wide. There are two teeth on the inner margin of the falx-sheath, and three smaller on the outer.

The *sternum* is broad shield-shaped, straight in front and curving to a point between the rear coxæ, which are not quite contiguous. It is thickly covered with downlying flat hairs and upstanding bristles.

The *lip* is broader than long, rounded at the side and in front, where it has a broad sloping edge.

The *maxillæ* are convex, upright, and about three times the height of the lip. From their base they curve outwards on both inner and outer margins to a rounded upper end, so that they are broadest in the middle. They have a few short upright bristly hairs.

The *legs* are moderately fine, covered with long powerful spines. There is a thick scopula on the tarsus and metatarsus, and claw-tufts under the weak curved pair of claws. On tibiæ 1 and 2

are three pairs of spines on the under side, on metatarsus of same a pair of very long spines at the base underneath, and another about the middle at the side. On tibia 4 are three long spines on the upper side and three pairs on the under. On metatarsus 4 are two pairs on the under side, three long spines on the outer side, and three long single ones on the upper side.

The tibia and patella of the palp are of equal length.

The measurements (in millimetres) are as follows:—

	Long.	Broad.				
Cephalothorax ...	$3\frac{1}{2}$	$\left\{ \begin{array}{l} 1\frac{1}{2} \text{ in front.} \\ 3 \end{array} \right.$				
Abdomen	$5\frac{1}{2}$					
Mandibles.....	$1\frac{1}{2}$	4				
			Pat. & tib.	Metat. & tars.		
Legs.....		Coxa.	Tr. & fem.			
1.	$1\frac{1}{4}$	4	$4\frac{1}{2}$	$4\frac{1}{2}$	=	$14\frac{1}{4}$
2.	$1\frac{1}{4}$	4	$4\frac{1}{2}$	$4\frac{1}{2}$	=	$14\frac{1}{4}$
3.	1	3	$3\frac{1}{2}$	4	=	$11\frac{1}{2}$
4.	$1\frac{1}{2}$	5	5	$6\frac{1}{2}$	=	18
Palpi.....	$\frac{1}{2}$	2	2	$1\frac{1}{2}$	=	6

One female from Mt. Peel, Canterbury, collected by Mr. R. N. Hawkes.

This species would appear to be somewhat near M. Simon's *A. vittatus* from Noumea, but the median abdominal stripe extends the whole length, and is pale brown instead of intense black. The legs are more heavily bespined, and the femora, although streaked longitudinally, are not ringed with black.

MYNOGLENES CHILTONI, sp. n. (Text-fig. 95.)

Male. The cephalothorax is of a rather deep yellow-brown, darker brown in the striations, but paler again on the rear slope. The eyes are pale yellow. The mandibles bright yellow-brown with red fangs. Lip and maxillæ about the same as the mandibles. The sternum darker, and dingier, is covered with fine granulations. The legs are pale yellow all over, with fine brown hairs paler towards the extremities.

The abdomen, both on the upper and lower sides, is black-brown, scantily covered with fine recumbent brown hairs.

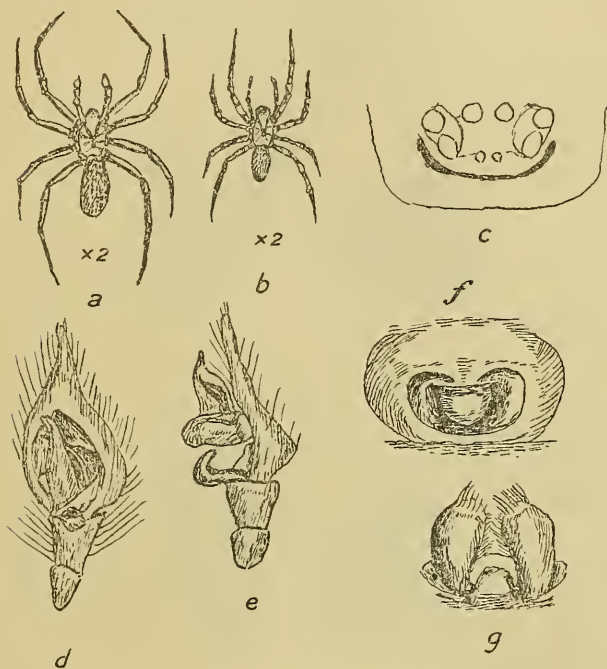
The cephalic part of the *cephalothorax* is slightly raised above the thoracic and rounded in front, where it is one-half the width of the broadest part, the latter being two-thirds of its total length. The surface of the thoracic part is smooth, without hairs, very finely granulated. The central fovea is shallow and round, with four pairs of small lateral furrows, and a broader and deeper pair round the margin of the cephalic part, all radiating from the fovea.

The *eyes* of the rear row are equal, the median their diameter apart, and the laterals one and a half diameters therefrom; these, with the front laterals touching them, lie on prominent tubercles.

The front median eyes, half the diameter of the others, are one-half of their own diameter apart; they are as far from the rear median as the latter from the side. The *clypeus* is as broad as the median eye-area is long, and the deep indentation characteristic of this genus runs below the front row of eyes.

The *mandibles* are much swollen in the upper half, whence they narrow and become almost cylindrical in their lower half; they are as long as the front of the head part is broad. On the outer margin of the *falx-sheath* are two long teeth followed by two smaller.

Text-fig. 95.

*Mynoglenes chiltoni*.

a, female; *b*, male; *c*, eyes; *d*, male palp from the front; *e*, male palp from the side; *f*, epigyne; *g*, lip and maxillæ.

The *lip* is broader than long, round at the top, with the protruding upper margin of the *genus*, and less than half the height of the *maxillæ*. These are upright, small at the base and gradually widen out as they curve over the lip.

The *sternum* is a broad shield-shape, straight in front, rounded at the sides and running to a point at the rear, where the *coxæ* do not quite meet. The latter are rather unusually large and rounded, especially the anterior pair.

The trochantal joints of the *legs* are long, and have a pronounced protruding ridge round them, about the middle. The other joints are thin and tapering, the tarsus and metatarsus being quite fine; they are well covered with very fine greyish-brown hairs, but have no spines.

The *abdomen* is long and oval, the surface being much corrugated longitudinally. The spinnerets are short, with a small hemispherical second joint.

Except in size the female agrees with the male.

The measurements (in millimetres) are as follows:—

Larger Male.

	Long.	Broad.					
Cephalothorax ...	3	$\left\{ \begin{array}{l} 1 \text{ in front.} \\ 2 \end{array} \right.$					
Abdomen	4						
Mandibles	$1\frac{1}{2}$						
		Coxa.	Tr. & fem.	Pat. & tib.	Metat. & tars.		
Legs	1.	$\frac{3}{4}$	3	3	$3\frac{1}{2}$	=	$10\frac{1}{4}$
	2.	$\frac{3}{4}$	$2\frac{3}{4}$	$2\frac{3}{4}$	3	=	$9\frac{1}{4}$
	3.	$\frac{3}{4}$	$2\frac{3}{4}$	2	$2\frac{3}{4}$	=	$8\frac{1}{4}$
	4.	$\frac{3}{4}$	3	3	4	=	$10\frac{3}{4}$
Palpi		$\frac{3}{4}$	$1\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	=	$3\frac{1}{4}$

Female.

	Long.	Broad.					
Cephalothorax ...	2	$\left\{ \begin{array}{l} 1 \text{ in front.} \\ 1\frac{1}{2} \end{array} \right.$					
Abdomen	2						
Mandibles	1						
		Coxa.	Tr. & fem.	Pat. & tib.	Metat. & tars.		
Legs	1.	$\frac{1}{2}$	$2\frac{1}{2}$	2	$1\frac{3}{4}$	=	$6\frac{3}{4}$
	2.	$\frac{1}{2}$	2	$1\frac{1}{2}$	$1\frac{1}{2}$	=	$5\frac{1}{2}$
	3.	$\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{1}{2}$	=	5
	4.	$\frac{1}{2}$	$1\frac{3}{4}$	2	$\frac{3}{4}$	=	5
Palpi		$\frac{1}{4}$	1	1	$\frac{3}{4}$	=	3

This species differs from *M. marrineri* in the paler colouring of the mandibles, lip, maxillæ, and legs. There is no yellow pattern on the back, only a slight mottling, and no paler area on the underside of the abdomen as in the foregoing. The thoracic fovea is short and shallow instead of being long and deep, and the granulated portions are confined to the thorax and sternum.

One male from the summit of Mt. Ngauruhoe, Waikato, N. Island. Mr. E. Phillips Turner.

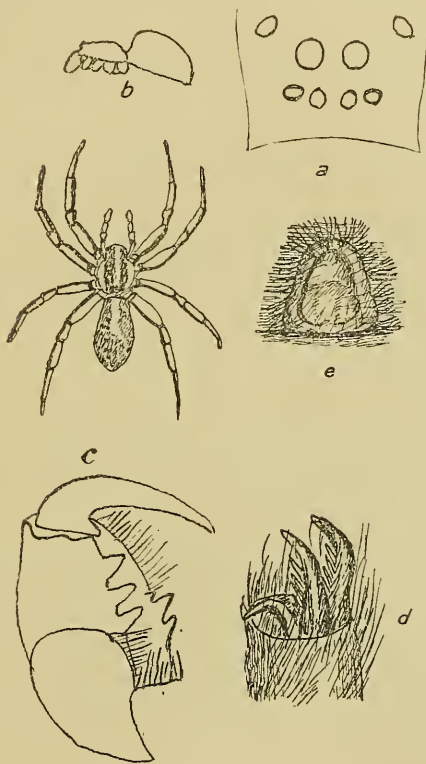
One male from Ruakura. Miss B. D. Cross.

One female from Picton in the South Island, found by Prof. Chilton, after whom I have named the species.

Dolomedes tridentatus, sp. n. (Text-fig. 96.)

Female. The cephalothorax is a bright chestnut, a broad area behind the eyes being thickly covered with silvery grey hairs, from this a narrower median streak of similar hair reaches to the rear slope, on each side of this is a broad area of chestnut covered with short orange hairs, and thence nearly to the side

Text-fig. 96.

*Dolomedes tridentatus*. Female.

a, eyes; b, profile; c, mandible from inside; d, tarsal claws; e, epigyne.

margin is again a broad white-haired streak. The mandibles are dark red-brown, thickly covered with long bristly hairs, nearly white on the outer sides, darker grey on the inner. The fangs are red. The lip, maxillæ, and sternum are dark brown, thickly covered with long upstanding brown hairs. The legs and palpi are bright orange, with long brown hairs darkening towards

the extremities of the limbs. The muscle parts are bright white. The abdomen is bright yellow-brown, thickly covered with short dingy yellow-brown hairs, a paler median stripe reaching from the base to about halfway down the back; on the sides of the abdomen the hairs are white. The underside is quite dark yellow-brown, with four longitudinal white-haired rather narrow stripes. The spinnerets are bright yellow-brown.

The upper surface of the *cephalothorax* although flat is considerably raised above the level of the side margins, and slopes steeply at the rear. It is one-fourth longer than its breadth in the widest part, and the front is only half the width of the latter. It is rounded at the sides and rear. There is a long and deep median longitudinal fovea extending from the cephalic part to the rear slope.

The side *eyes* of the front row are on the lower slope of black tubercles, which, extending farther back than the median eyes, give the appearance from above of a recurved row. Their lower edges are on a level with the lower edges of the median, and as they are smaller the line of the upper margins is really procurved. The median eyes are about their diameter apart and one-half that distance from the side pair, which are two-thirds of the width of the former. The eyes of the second row are about twice the diameter of the median eyes of the front row. They are rather less than their diameter apart, the same distance from the front median, and the total length is clearly less than that of the front row. The median eye-area is broader than long. The eyes of the third row are four-fifths the diameter of those of the second, five of their diameters apart, and two of the same from the eyes of the second row. The *chlypeus* is about $2\frac{1}{2}$ times as broad as the front median eyes.

The *mandibles* are kneed at the base, stout, as long as the front of the cephalothorax is broad, and slightly divergent. They are thickly covered with long upstanding bristles. The fangs are broad at the base, strong, and well curved. About the middle of the inner margin of the falx-sheath are three large teeth, all equidistant, at the lower end of the outer margin is one large tooth between two small. The *lip* is broader than long, straight in front, and less than half the length of the maxillæ.

The *sternum* is a broad shield-shape, straight in front, pointed at rear, where it passes between the two rear coxæ, which are not quite contiguous.

The *legs* are stout and straight, slightly and normally tapering to the anterior ends, but in nowise fine or flexible; they are armed with numerous long and strong spines. There are scopulæ on the tarsi and metatarsi of the front two pairs, on the tarsi only of the rear. The superior claws have six or seven teeth, the inferior are smooth. There is a pair of spines on patellæ of pairs 3 and 4, none on patellæ of 1 and 2. The femoral joint of the palp

is incurved and enlarged at the anterior end, the tibial joint is longer than the patellar, and the female palp-claw has four pectinations.

The *abdomen* is oval, rounded at the sides. The hairs are smooth and fine. On the upper side are three pairs of muscle-spots. The *epigyne* is horseshoe-shaped, hollow in the anterior half only, and without any longitudinal rib. The superior pair of *spinnerets* is longer than the inferior. They are both two-jointed, the second joint half the length of the first.

The egg-sac is globular, white, and flocculent, 12 millimetres in diameter.

The measurements (in millimetres) are as follows:—

	Long.	Broad.
Cephalothorax ...	8	3 in front. 6
Abdomen	11	
Mandibles.....	3	6½

	Coxa.	Tr. & fem.	Pat. & tib	Metat. & tars.			
Legs	1.	3	7	7	6½	=	23½
	2.	3	7	7	6½	=	23½
	3.	2½	6½	6½	6	=	21½
	4.	3	7	8	8	=	26
Palpi	1½	3	3	2½	=	10	

One female from Dunedin. Collected by Mr. G. M. Thomson.

This species differs from the accepted limits of the genus *Dolomedes* as detailed by M. Simon in having three teeth only on the inner margin of the falx-sheath instead of four. The clypeus while broad is less broad than the area of the median eyes, and the patellæ of legs 1 and 2 are without spines. It is, however, much nearer to *Dolomedes* Latreille than to *Thaunasia* Perty, *Drances* Simon, or any other genus. I would have felt it right to propose a new genus for it on the above differences but for the fact that it graduates so imperceptibly into other members having four teeth, notably *D. huttoni* and *D. trippi* from the Chatham Islands, which are certainly *Dolomedes*. Its eyes and clypeus, the equality of the 1st and 2nd pairs of legs, and the marking of the cephalothorax in the female correspond almost exactly with those of *D. trippi*. Its epigyne is of the same type as that of *D. huttoni*.